

AMENDMENTS TO THE SPECIFICATION:

Immediately following paragraph [019], please add paragraph [019A] on page 4 as follows:

[019A] FIG. 9 is a perspective view of another three plate embodiment of the present invention.

Please amend paragraph [024] on page 6 as follows:

[024] Key to effective focusing is lowering of the temperature of the device. The device in FIG 2. has in thermal contact with the first plate 10 an electro-thermal device 60, for example a Peltier, for cooling the sample path for focusing and optionally heating it for desorption. Other methods and means for both heating and cooling are discussed in more detail below. This can be accomplished in a number of ways with the present invention. The nature of the design concept generally ~~describe~~ described in FIG. 1 accommodates optimization of the design for many different coolant approaches. Plate dimensions, the number of layers of plates, the pathway(s) for coolant and restrictions necessary for efficient expansion of cryogenes, etc. can all be accommodated within the design concepts.

Please amend paragraph [025] on page 6 as follows:

[025] FIGs. 3-5 illustrate additional embodiments utilizing two plates bonded together, similar to FIG. 2. In each embodiment two paths are created when the plates are bonded, one pathway for sample and a second for coolant. The difference between the embodiments disclosed in FIG 3-5 and FIG. 2 is the location of the etching to create the channels that will form the sample and/ or coolant paths. FIG. 3 shows the side view of two plates 10 and 20. A first channel 14 is etched into the first surface 12 of the first plate 10. The channel begins (or ends) at the side 11 of the first plate 10. ~~And, and~~ as shown in FIG.

2, extends in a continuous path to an exit in a different side, preferably at the opposite end. The exit and entrance of the channel can be in any side, and even on the same side in some embodiments. In FIG. 3 a second channel 24 is etched into the second surface 22 of the second plate 20. The channel begins (or ends) at the side 21 of the second plate 20. Like the first channel ~~12~~ 14, the second channel extends in a continuous path to an exit. When the first plate 10 is bonded and sealed to the second plate 20 in the direction indicated by the arrows, two paths are created. The channels ~~12~~ 14 and ~~22~~ 24 are positioned so that the channels ~~12~~ 14 and ~~22~~ 24 do not intersect at any point in the device.

Please amend paragraph [027] on page 7 as follows:

[027] FIG. 5 shows yet another two plate embodiment, that when assembled is a two pathway device. The first plate 10 and second plate 20 have substantially the same length and width. In this embodiment, like FIG. 4, a first and second channel 14 and 16 are positioned on the first surface 12 of the first plate 10. The second plate 20 has a second surface 22. A third ~~channels~~ channel 24 and fourth channel 26 are etched in the second surface at locations corresponding to the first channel 14 and second channel ~~26~~ 16 respectively. When bonded two paths are formed. In this way paths with larger diameters can be formed from similarly dimensioned plates to the embodiment in FIG. 4.

Please amend paragraph [030] on page 7 as follows:

[030] An ~~alternate~~ alternative coolant is compressed air blown through coolant channel of the focusing device to lower its temperature. This is a more cost efficient method but has thermal limitations. It is most effective if the ~~ambient~~ temperature of the compressed air is significantly lower than the temperature of the device (e.g., the GC oven temperature is $> 150^{\circ}\text{C}$ hotter than the air), but this is not a requirement.

Please amend paragraph [031] bridging pages 7 and 8 as follows:

[031] An ~~alternate~~ alternative approach for cooling the device is vortex cooling. In terms of effectiveness of cooling, vortex cooling is somewhere between the use of cryogenics and the use of compressed air. In vortex cooling, a vortex tube creates a vortex from compressed air and then separates it into hot and cold airstreams. On entering a vortex tube, the compressed air flow passes through a vortex generation chamber, which starts the air stream rotating. The air stream exiting the chamber rotates at very high speeds (e.g., speeds up to 1,000,000 rpm) as it is forced along the inner walls of the tube towards a control valve. At the control valve, a small portion of the air exits through a needle valve as hot exhaust. The remaining air is forced back through the center of the incoming air stream at a slower speed, where the slower moving return air gives up heat energy to the faster moving incoming air. The cooled return air then flows through the center of the vortex generation chamber and exits through the cold air exhaust port. The cold air can then be flowed through the path in the device. Vortex cooling typically reduces incoming temperatures 35-45°C, making it quite suitable for use with the invention in certain applications.

Please amend paragraph [040] bridging pages 9 and 10 as follows:

[040] In yet another embodiment sample paths can be achieved by completely removing material (creating slots) on the plate, and then sandwiching the plate between two other solid plates to create a pathway in the device. In this approach, alternating slotted plates with solid plates can yield ~~longer~~ larger paths. FIG. 7 illustrates a plate 70 with a slot 74 created by the removal of material from the plate 70. A center point 75 is positioned to receive a feed through hole.